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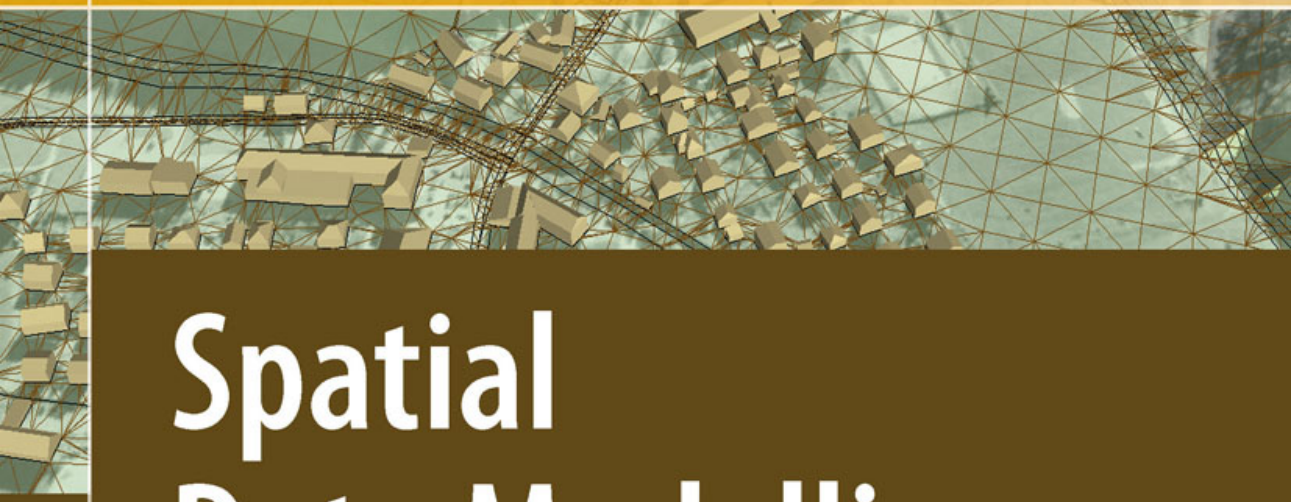

Spatial Data Modelling for 3D GIS

Springer

Preface

This book is based on research works done by the authors at the University of Glasgow, Scotland, United Kingdom and the International Institute for GeoInformation Science and Earth Observation (ITC), The Netherlands in 2000 and 1996 respectively. We were motivated to write the book when we began a joint research work in 1992 for our postgraduate theses on Digital Terrain Modelling (DTM) data structuring and eventually DTM software development based on triangular irregular network (TIN) data structure. We realized then that many aspects needed to be addressed especially if an advanced geo information system (GIS) such as 3D GIS system was to be realized. Research in 3D GIS is getting growing in interest and this has really motivated us to do more experiments in the 3D domain. One of the most current interesting issues is spatial data modelling for 3D GIS.

We would like to thank our former supervisors, Dr Jane Drummond of University of Glasgow and Dr Klaus Tempfli of ITC. Various helps received from friends and colleagues at both institutions are also acknowledged. Special thanks go to Mohamad Hasif Nasaruddin, a postgraduate student at the Dept of Geoinformatics, Faculty of Geoinformation Science and Engineering, Universiti Teknologi Malaysia (UTM), Johor, Malaysia for his patient in formatting the manuscript.

This book aims to introduce a framework for spatial data modelling for 3D GIS and it is specifically written for GIS postgraduate level courses. Postgraduate students, researchers, and professionals in Geo Information (GI) science community may find this book useful and it may provide some insights in various spatial data modeling problems. We hope that this book will serve as one of the useful resources in 3D GIS or 3D geoinformation research.

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